

# METHOD AND APPARATUS FOR ATTACHMENT OF A PROBE TIP

## Abstract

A method and apparatus for attaching a proximity probe offset to an axis defining a metal probe case and an extension cable extending therefrom. The method and apparatus include a metal interface cup securing the proximity probe therewith; and a metal probe case configured with a first bore extending from one side toward an axis defining a length of the metal probe case. The bore is configured to accept the metal interface cup while leaving a tip of the proximity probe exposed. A bottom surface defining the metal interface cup opposite the tip mates with a first surface defining a closed end of the first bore. The metal probe case is further configured with a second bore extending from a substantially opposite side of the one side. The second bore extends perpendicular from a surface defining the opposite side, wherein only a portion of the second bore intersects the first surface of said first bore creating a through hole into the first bore. When the metal interface cup is disposed in the first bore, the through hole is covered and includes a fusion at an interface between two ex-

posed mating surfaces defining the cup and second bore, thus securing the cup with the case. The fusion includes a fusion process with or without addition of a binder material.